PROGRESS OF THE NATIONAL ACADEMY OF SCIENCES

Researches and Investigations of Great Value Which Are Little Exploited Before the Public.

By CHARLOTTE M. CONGER.

of the diners were captains of industry with fortunes representing many millions that the National Academy of Sciences would hold its annual meeting in Washington on April 19. Whereupon everybody devoted themselves to their mutton, an assembly of prophets, without honor eminent zoologist of Yale University.

The origin of the word "academy" that it came from the public park outside of Athens where Plato and Socrates lectured to their following, which took its name-from its one-time owner, Academus, is known to every schoolboy, and he can glibly give the present definition as "A society of learned men, established for the improvement of science literature, or art;" but ask the ordinary passer-by of the National Academy of Sciences and he knows nothing of it.

In utilitarian America the money-seeker has no time to devote to science, unapplied science, at least, and, as nearly every American is a seeker after money, and has little ambition to hear or know of anything else, science has a small audience. So, year after year, the National Academy of Sciences holds its annual meetings in Washington, and, save in a general way, informed by brief telegraphic dispatches, the world outside knows nothing of what takes place at is symposiums; yet it is an authorized branch

Members Are Responsible.

Its members themselves, however, are in a measure responsible for the popular ignorance regarding the academy's work, since they are so occupied with their investigations, so absorbed in their experiments, that they have neither the time nor inclination to interest the unsympathetic lay world in subjects it is unlikely to understand; nor does their limited resources permit them to publish and circulate the results of their investigations and experiments. Yet it is not to be doubted but that a wider knowledge of the academy's work, scope, and aims would induce besome of the most valuable discoveries have been made through money supplied by unlettered laymen.

The National Academy of Sciences body corporate was approved by President Lincoln. The act of incorporation vestigate, examine, experiment, and re- first meeting the following committees

port on any subject of science or art, the request of A. D. Bache, a committee to At a recent dinner given in a certain actual expenses of such investigations, American metropolis, where nearly all examinations, experiments, and reports holometer. should be paid by appropriations which might be made for the purpose, but that of dollars, the announcement was made tion for any service to the United States to it, and its running expenses are met body at the table looked wise, and every- by the annual dues of its members. The the academy's work for the government act of incorporation further provided that started, and it went on undertaking the save one bold person, who demanded to the ordinary members of the academy investigation of such subjects as the know, "What is the National Academy of should be limited to fifty, but a subse-Sciences, anyway?" The ice being thus quent act removed this limitation, and servation question, which latter work ul broken, some of the other convives fol- the roster of the academy now bears the timately resulted in the founding of the lowed the example of their fellow-guest, names of more than 100 ordinary memand said: "Yes, what is the Academy of bers, forty-five foreign associates, and government for scientific research and Sciences, anyway?" So is a prophet, or one honorary member, Sidney Smith, the advice brought about the gradual devel-

> The formation and incorporation of the Academy of Sciences was undertaken by the leading scientific men of the country

Work of Scientific Men.

bureaus now doing such valuable and left for specific purposes. such interesting work had not been cre-! ated, and those already established had not attained their present state of use-

As soon as the bill incorporating the National Academy of Sciences was approved by President Lincoln, Senator Henry Wilson, who had evinced the greatest interest in the project from the first moment it had been mooted, who had, indeed, fathered it in the Senate, called a meeting for April 22 at the chapel of the University of the City of New York, when its constitution was adopted and its first board of officers elected. The officers selected were the flower of the scientific men of the country. Alexander Dallas Bache, the great-grandson of Benjamin Franklin, one of the most picturesque as well as the most brilliant men of his day, was elected president; James Dwight Dana, of Yale, and the geologist quests and endowments, for that is the history of every similar institution, and was made vice president; Louis Agassiz, then at the zenith of his career, was selected for foreign secretary; Walcott Gibbs, the Harvard professor of chemistry, was the home secretary of this first passed its forty-seventh birthday on the board, and Fairman Rogers, the civil 3d of last month, for or that day in 1863 engineer, who served as a volunteer in the civil war, treasurer.

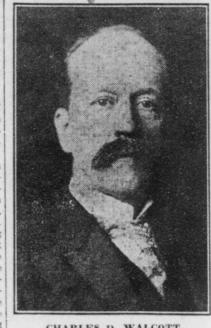
Soon Busy at Work.

Immediately upon its organization Con provided that, whenever called upon by gress put the academy it had created to any department of the government to in- work, and less than a month after its

were appointed: At the request of the Hon. S. P. Chase, Secretary of the Treasury, a committee on weights, measures, and coinage; at the request of the Navy Department, through Rear Admiral Davis, a committee on the subject of protecting the bottoms of iron ships from injury by salt water; by the same department and through the same authority, a committee to report on the subject of magnetic deviations in iron ships; at the investigate and report on Saxton's alco

Other committees appointed were or wind and current charts, and sailing dithe academy should receive no compensa- rections; national currency; on the quesgovernment, nor has it been rewarded by the expansion of steam; on cent coinage, Congress for any of the work intrusted and on the explosion of the U. S. S. Chenango. So, from its very beginning sorghum industry, and the forestry con-Forestry Survey. The necessities of the opment of scientific bureaus in all of the counsel to the government.

the then existing need for an advisory has never been, a wealthy institution. For Benjamin Apthorp Gould, bequested \$20,000 these men have been so much in the pubboard in regard to the scientific interests the first few years of its existence its only to the academy for the same purpose. J. lic eye that no account of them is necesof the country and to discuss the scientific questions developed by the war. The members and the Alexander Dallas Bache tigation of meteoric bodies, and there is they hold is an earnest that the Academy foundation of the academy was, in fact, fund of \$42,000, which, however, was left the Comstock trust fund for researches of Sciences is maintaining the same high a patriotic movement, inspired by the for a specific purpose, "the prosecution in magnetism and radiant energy, the standard instituted by its founders. same loyalty and love of country that of researches in physical and natural sci- Marsh fund for promoting original removed men to enter the military service ences, by assisting experimenters and ob- searches in the natural sciences, and the of the country. It was a very necessary servers in such manner as shall be agreed Joseph Henry fund of \$40,000, which was measure, too, this creation of a scientific upon by Profs. Henry, Agassiz, and contributed by Fairman Rogers, Joseph advisory board, on whose judgment the Pierce, or by their successors." In later Patterson, George W. Childs, and others, erable Gen. Henry Larcom Abbot, who gulates of Patagonia." government could rely, for, at the time it years it has received numerous bequests, as an expression of their respect and was graduated from West Point in 1854, was incorporated, many of the scientific but, like the Bache fund, they have been esteem for the first secretary of the served from the beginning to the end of



CHARLES D. WALCOTT,

departments, and as these were estab- who conducted the expedition to China to made foreign secretary in place of Alexlished the occupation of the academy in witness the transit of Venus, made the ander Agassiz, and Henry Fairfield Os- nearly half a century. Prof. Gill has this direction declined, so that nowadays academy his residuary legatee, but his born, of the American Museum of Natit is rarely called upon to give facts and will provided that the money so acquired ural History, and Russell Henry Chitten- academy since he was elected to it, and Edward Pickering, of Harvard Univer-The Academy of Sciences is not, and astronomical research, and his colleague, have been elected to the council. All of is fishes, and his contributions this year Metcalf Doublet. Prof. Pickering has Smithsonian Institution. The income of the civil war in the Engineer Corps, and

during his lifetime, and after his death to his wife and daughters, and upon the the securities in which it might be inrested are to be delivered to the Academy of Sciences, under the name and title of the "Joseph Henry fund." The last bequest_comes from the late foreign sec retary of the academy, Alexander Agas siz, under conditions that have not yet been announced. The academy has also the awarding of the Henry Draper and for important discoveries in astronomy,

April, and the one that has just come to of the Smithsonian Institution, vice president: Arnold Hague, home secretary, and S. F. Emmons, treasurer, George E. Hale, of the Mount Wilson Solar Observatory, who was one of the youngest imship in the academy in 1902, has been should be used for the promotion of den, of the Sheffield Scientific School,

Among those present at the meetings James Craig Watson, the astronomer, this fund was to be paid to Prof. Henry had passed through all grades from sec-



ARNOLD HAGUE,

death of the last survivor any sum and Men Widely Famed Devote Time to Achievements for Which They Rarely Receive Credit.

the Barnard medals. The first is given tired by law in 1895. His war record alone of its most faithful members, crossing the second for meritorious service to Hall of Fame, but he has also won recog- Hale is the inventor of the spectrohelia-The academy holds its annual meetings bot designed the system of submarine de- been in solar and stellar spectroscopy, and n Washington on the third Tuesday in fenses adopted by the United States. He he has been awarded medals by the close has been interesting and instructeries, and, while he is no longer the Astronomical Society of London, and the tive even to laymen. The present officers gallant young officer who commanded the Draper and Rumford medals for his of the academy are Ira Remsen, the artillery of the armies operating against work on this subject. He is, too, an president of Johns Hopkins University, Richmond, and his eightieth birthday is associate member of the Royal Astropresident; Charles D. Walcott, secretary fast approaching, he has as keen an in- nomical Society, and an honorary memdraulics of the Chagres River" read at the session Wednesday was listened to

Another veteran of the Academy is Prof. Theodore N. Gill, who has been on his beloved trilobites, "The development of Olenellus," while his colleague, William B. Scott, whose chief work has been done in Patagonia, read a paper on "Progress in the study of Miocene un-

But geology is not for the layman. Angraph of Franz Boas, on "The influence of environment upon human types," was, therefore, one of the most popular paand from the latter university holds the the philosophers sought.

The Royal Ethnological Museum in he was invited to establish himself in this country, which he had already vis-American Esquimo in his native environ-

dryest scientific facts that makes it seem terestingly of his life in the Orient, and my has ever Sciences when he was only thirty-two this distinguished company.

and lieutenant to colonel when he was re- | years old, and since then he has been one would have entitled him to a seat in the the continent to attend its meetings. Mr. nition in the world of science. Gen. Ab- graph, and his principal researches have designed, too, its system of mortar bat- French Academy of Sciences, the Royal terest in the scientific questions of the ber of the Societa degli Spectroscopisti day as ever, and his paper on the "Hy- Italiani, and of the Swedish Astronomical Society; in fact, he has been honored by his colleagues all over the world, and has as many "chiffons" to display as a general who has seen many campaigns.

never missed an annual meeting of the at the meeting of the academy was Prof. he rarely fails to read a paper. His cult sity, who read a paper on the 16-inch and relations of Apodals" and "Recent since 1876, and under his management it discoveries of the early history of the has reached its present important posimon eel." Mr. Walcott read a paper tion among the great observatories of the world. The first physical laboratory established in this country was the one installed by Prof. Pickering, and he established an auxiliary observatory in Peru for observation of the southern stars, so that his work in the heavens extends from pole to pole.

A meeting of the academy would hardly be complete without the presence of Dr. Veir Mitchell, who is its nestor, having been elected to membership in 1865, before some of his present associates were born. but he was only thirty-five when he attained that honor and now he has celepers read, especially as he treated it with brated his eightleth birthday. His interreal German thoroughness. Dr. Boas, by est in the academy and its work is as the way, was born on the other side fresh as ever, and one's own work and and comes from Westphalia. He was ed- interest in the work of others is really ucated at Bonn, Heidelberg, and Kiel, the fountain of perpetual youth that

A colleague of Dr. Mitchell who has found this fountain is Prof. Edward Berlin was his workshop for a time, and Morse, who made the wonderful collection he was docent of geography in the uni- of Japanese ceramics for the Boston Muversity there. In fact, he was well on seum of Fine Arts, and wrote the wonhis way in his career and had already derful catalogue for it, which is said to made an international reputation when be the best arranged and most comprehensive one on this subject in existence. But Prof. Morse is a mere youth comited for the purpose of studying the pared with some of his colleagues, for his seventy-second birthday does not come until next June, yet he has written and done other things enough to fill George E. Hale, the new foreign sec- a half dozen lives full. His profession retary of the academy, is always in-teresting, and always sure of an attentive but he has worked in all of the sciences, audience, for he has a way of stating the made a pastime of astronomy, written in-

appealed to men, and there are, perhaps, The foreign associates of the academy more amateur astronomers than ama- include nearly all of the leading scienteurs in any other science. Mr. Hale tists in Europe, but, strange to say, no was elected a member of the Academy of Oriental has, as yet, been admitted to

WASHINGTON'S CANOE TRIP DOWN THE POTOMAC

trip around the Great Falls, and the ar- | winter.

Upham, of St. Paul. It is as follows: it was originally folded, is now spread opposite side. open and framed with glass on each side to allow both sides to be read.

On the side first written, bearing the formal address, the date August 12, Honble Sir: 1754, and the signature, Washington wrote of the military situation and difficulties to be overcome. Though the name of the person addressed is not contained in the letter, it was evidently Colonel James Innes, in command of the North Carolina troops, as Washington was of those raised by Virginia.

Governor Robert Dinwiddie, of Virginia, had commissioned Colonel Innes, on June 4 of that year, to be commanderin-chief of the forces in a proposed expedition against the French on the Ohio and its tributaries, since all that country west from the Allegheny Mountains to the Mississippi and south of the Great month after the date of his commission. Innes and his North Carolina men had Wage reached Will's creek, on the upper part of the Potomac, where Fort Cumberland

Washington on his return from the batfought on July 3, 1754, against the Sir French and Indians on the Youghlogheny river in southwestern Pennsylvaia, met Colonel Innes at Will's creek. The present need of transportation of military supplies, and the future needs of compart of the most feasible route of com- ing-The first of those Falls is also even in Virginia and West Virginia. munication from the seaboard to the and shallow but swift and continues so Patterson's creek joins the Potomac a few chosen men made a cance journey known by the Spout wch is a mile & was probably the starting point. of observation down this river from half-from this [*] their is Rocky swift | The distance traversed along the course

the middle of July, in the course of by digging a Channel on ye Maryland river, as noted in the reports on water washington's return to Williamsburg, side abt 2 miles from this, and ½ mile power published by the Tenth United If time could turn backward so far, for the Potomac canoe trip, it was made Rocky occasions a Rippling so prodigious is 25 feet. Thus the series of rapids and he sped in a canoe, probably a log dug- notified Commander Peary they will be not be started until the entire amount is in the last week of July or early in that none but boats or large canoes can falls most particularly described by out, down the dangerous rapids and falls unable to participate this year.

Among the most precious old manu- dria. On its reverse side, beginning round a small Island on the other side- half a total fall of 80 or 90 feet, from scripts owned by the Minnesota His- close at the top of the sheet, Washing- which passage may be greatly improved. about 140 to 60 or 50 feet above tide level. torical Society is an unpublished long ton wrote his description of the Potomac, abt 8 miles below this there is another The top of the Little Falls, 5 miles above letter of George Washington, which was apparently in much haste, with many Fall which is very easy and passable and Georgetown, is noted as 37 feet above presented to this Society in 1870 by Hon. interlined additions, shorter insertions by abt 2 Miles from that is a cluster of lide.

are as follows:

if it is agreeable to you I should be glad to know what State your Regiment is in as I hear some of your Men are infected with the same disorders that our's are possess'd off—

I am Your most Hble Servant

Lakes was claimed by the King of Great Britain and his American colonies. A puchasing enough for that use. When we were out 1 sent express after express, and desired to have the artillery sent and was answer'd that a Waggon cou'd not be hired for 5 times the Value. Washington's observations and narrawas built under his direction, on the site The last part, including "Bridge from

This journey was made probably about but shallow yet may be much amended Falls. In this distance the decent of the cial and industrial development of our then the capitol of Virginia, to submit below ye mouth of Shannondoah is what States Census, and amounts to about many living in the wider America of to Governor Dinwiddle the report of his they call the Spout, which is the 460 feet, from about 610 to 150 feet above to-day would gladly give much to see the Peary Arctic Club and the National eventful western expedition, which had great (& indd almost the only) difficulty the sea. culminated in the battle of July 3. If of ye whole it has a considerable Fall In 11/2 miles next above the mouth of tier and forest surveying, and recently polar expedition will not be considered. Washington first completed his return to ye water being confined shoots with the Shenandoah river, at Harpers Ferry, led to take up his great life work as a It was learned on good authority yes-Williamsburg, traveling wholly by land, great Rapidity & adds much to the dif- the Potomac falls about 27 feet; and its brave and tactful soldier and a lofty terday that the expedition will not take

The Past" contains an account of Gen. King's Council in Virginia, urging him may be a passage also got round this of more than 50 feet, being from 272 to Washington's canoe trip down the Po- to dissuade Governor Dinwiddie from his also upon the Maryland shoar that Ves- 220 feet above the tide or sea level, tomac and a fac-simile of an unpub- purpose of sending an expedition for a sels may be hald up after removing some | Seven miles below the Seneca Fall, lished letter written in 1754. In the campaign against the French on the Rocks which a moderate expence may which is at Seneca creek, are the Great previous number was an article on the Ohio during the ensuing autumn and accomplish-One of the other two Falls Falls, about 14 miles above Georgetown ing thence continuously onward. is swift and ugly representing much and the head of tidewater, having a ticle here reproduced was written by The letter of the next day to Innes the Spout but when the _iver is higher sharp descent of 35 or 40 feet in 100 or was probably also written at Alexan- than ordinary a passage may be had 150 yards, and in a mile or a mile and a

IRA REMSEN.

President of Johns Hopkins University.

Since writing for Earlies I have contained in the street of delay the other to Williamburg addiquite to the expence and trouble will from till you signifie your Sentiments to me on this not answer the Charges as all Carriages their head, that I may be guided thereby, and write for the benefits of a good Road 1755.

kind of conveyance.

The current number of "The Records of ter to William Fairfax, member of the water on both sides and at ye hd-Their low the Shenandoah, comprises a descent picture a lesson of courage and fidelity.

S. F. EMMONS.

Treasurer of the National Academy of Sciences.

Wallace B. White, of Washington, D. C., carets, and frequent words crossed out, small Islands with many Rocks and As early as 1749, 5 years before Wash- emphasizes the significance of the simple who in 1849-50 had been a resident and others being substituted as preferable. swift water which renders the passage ington's trip, the Ohio Company had words descriptive of the emotions that territorial officer of Minnesota. The let- The description, with comment on the somewhat precarious. From this to the taken boats up the Potomac from the we come to know, as some one has said, ter, written on a sheet of paper about river navigation, overran that side of the Seneca Fall the Water is as smooth & head of the Great Falls; and in 1750 that "words are living powers and real, 8 by 13 inches in size, yellow with age sheet, so that it was finished by inter- even as can be desird, with scarcely any they established an Indian trading post not mere sound and echo." Take the and torn along one of the creases where lined writing on the upper part of the perceptacle Fall-The Seneca Fall is at Will's creek, far beyond the boundaries word "love," a short, familiar word, inopposite side.

The military letter and its postscript may continue within two Miles of the after Washington's examination of the deed; but who except the lover ever Gt Falls but further it is not possible river, it was again examined by Gover- fathomed its portent? 12th of August, 1754. therefore the trouble and expence of ad- nor Horatio Sharpe of Maryland and If you always had a happy home, from vantage of passg this Fall will not be Sir John St. Clair, going in a small boat the time you lay a helpless babe in your adiquite to the expence and trouble will from Fort Cumberland to Alexandria, mother's arms, on through the many not answer the Charges as all Carriages their start being on or about January 28, years when a loving wife and happy chil-

conveniences and inconveniencies that at. Innes is given by Saunders in his pretend the navigation of Potomack frm ye fatory notes of Volume V, Colonial meaning of "homeless." If you live on Fall up, which I doubt but you will Records of North Carolina. It appears you will know more of it yet, but its readily concur with me in judging it that Innes was born not later than 1700. full signification you will never define. more convenient least expensive and I being a native of Scotland, probably of may further say by much the most ex- Cannisbay in Caithness. He came to lonely heart like the tolling of a knell at peditious way to the country. There is North Carolina before 1735, and after 1,50 midnight. Only the Christian, left so alone, but one objection that can obviate this he was a member of the Council of that who is a "stranger and a sojourner, as Carriage & that is ye scarcity of water colony. His military service at Fort his fathers were," and who "seeks a in the best season of ye year for this Cumberland ended in August, 1755, when house not made with hands," can find he returned to North Carolina. He died any comfort or happiness in this world At the beginning of the Potomac part at Wilmington, N. C., September 5, 1753. of the letter, Washington refers to The survey narrated in this letter was home has passed away from him forever. Frederick county, which was established one of the seeds which long afterward, whence" and forward, is interlined with by legislative act of the Colony of Vir- fruited in the unremunerative rock-hewr. tle of Great Meadows, or Fort Necessity, the previous military part of the letter: ginia in 1738, comprising the part of its canal and locks constructed past the territory west of the Blue Ridge and Great Falls on their Virginia side, and Your desire, added to my own curiosity bounded on the southwest "by a line still later in the successful Chesapeake engaged me the last time I was in to be run from the head spring at Hedg- and Ohio canal adjoining the Mary'and Frederick to return down by Water to man river to the head spring of the river side of the Potomac. In the national discover the Navigation of Potomack- Potomack." The river first mentioned is deliberations for constructing the latter the following are the observations I one of the upper streams of the Rap- canal, Washington's notes of this river merce between the Atlantic coast and mad thereupon, I made in that Trip- pahannock. Within the area thus in- survey in 1754 were used, an abstract of the interior of the country west of the From the mouth of Paterson's Creek to cluded by the original Frederick county them being published, with other data mountains, led both these commanders to the begg of Shannondoah Falls there is as then existing, bounded on the north and observations by many later surveys, wish more detailed knowledge of the no other obstacle than the shallowness by the Potomac river and Maryland, are in a report to Congress (19th Congress. navigability of the Potomac river as a of the Water to prevent Craft from pass- now il counties, and parts of two others, 1st Session, H. R. Report No. 228, p. 26, May 22, 1826.) Thus the descriptive letter hurriedly written by Washington, amid Ohio valley. Therefore Washington and with interruptions of Rocks to what is about 7 miles below Will's creek, which many distractions and heavy cares as a young patriot for protection of the colonies against French aggression, has Will's creek to its Great Falls, noting and very uneven water for near 6 miles, of the river in the canoe trip was very a place in the foundations and beginits conditions for navigation and es- in which distant there are 4 Falls, the nearly 170 miles, terminating at the head nings of all the work of this nation for first of which is tolerably clear of Rocks of the strong rapids close above the Great internal improvements and the commer-

should look back to that day and scene and its hero, and should portray them with essential historic truth for the less gifted common people to receive from the

Home secretary of the National Academy of Sciences,

*The head of these rapids and falls, about tw

HOMELESS.

By PRIVATE DALZELL.

Maybe you know what that word 'homeless" means; maybe you do not.

dren sat around you, till old age crept are obligd to pass Difficult Bridge Washington at the time of this journey on, and all were gone but yourself, some property from whence it is but 8 Miles to ye was 22 years old. Less than a year after-to the grave, the rest scattered about the mour) by the return of this Messenger, to take the same conveyance with mine that goes by an old is 5 Miles to the Lowest landing disastrous battle of Braddock's defeat. Officer who I shall send to receive the needful yt can be hd below the aforesd Falls of for Recruiting. If you think it advisable to order me in the shattered Condition we are in to march up to you, I will, if no more than ten Men follows me (which I believe will be the full amount.)

Twenty years later was the beginning of the American Revolution.

Much information of the life of Colonel latter years roll swiftly by the sad ex-"Homeless!" It strikes down into the

> once he realizes that all he ever called Perhaps nowhere in all the range of iterature is this desolate feeling so well expressed as in the pathetic lines of "Sweet Home," where the homeless wanderer sighs for "his lowly thatched cottage again." Marius, in the ruins of Carthage, banished, abandoned, and pursued by assassins, is a vivid picture of the lonely and hopeless condition. Yet neither of these spectacles of homeless solltude fully represents the conscious knowledge that one has no home. The

Whose lights are fled and memories dead. And still its despair and crushing pathos are not fully portrayed, and never

poet says, in mournful lines-

I feel like one who walks alone

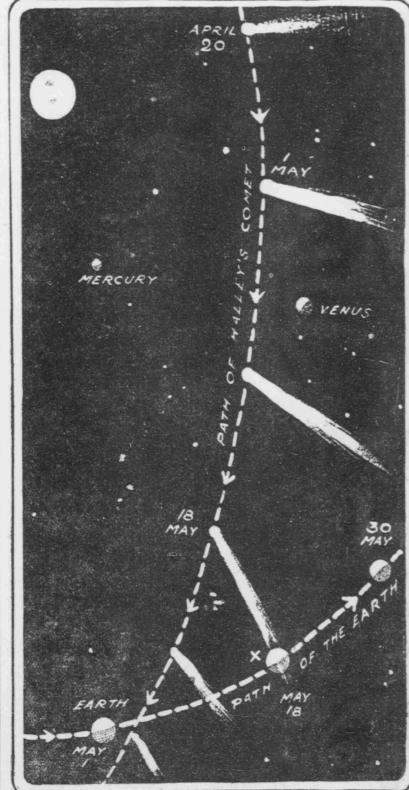
ANTARCTIC TRIP POSTPONED. Joint South Polar Expedition Has

Been Definitely Abandoned. Until one year hence further plans of

the youthful Washington, skilled in fron- Geographic Society for the joint south

on hand.

ORBIT OF EARTH AND COMET.



This diagrammatic view of the section of the earth's orbit shows how the earth will pass through the tail of Halley's comet. The path of the comet is shown descending from the top of the picture. The sidereal point in which the collision, perceptible or imperceptible, will take place is marked by a cross. Another comet-an unexpected visitor-has also loomed suddenly into vision. It can be seen in daylight with the naked eye, just before

raised, but it is felt by the society and June 1. If he fails, an American expediand afterward went back to Will's creek ficulty is the bottom being exceeding descent in the next 3 miles down stream statesman, when on a midsummer day place, and the two organizations have the arctic club that the expedition should tion probably will be sent out next year.

While you think of it, telephone your August. On the 11th of August, Wash- pass—The cance I was in which was not washington, estimated by him to have of the Potomac near the mouth of the inaton wrote at Alexandria his long let- new had near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fad near sunk having received much an extent "new fa